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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,233	08/20/2001	Jun Yamada	GOT 142 NP	6125

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EXAMINER

PEREZ, GUILLERMO

ART UNIT PAPER NUMBER

2834

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,233

Applicant(s)

YAMADA ET AL.

Examiner

Guillermo Perez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Koike et al. (WO 009747491).

Referring to claim 1, Koike et al. disclose a hybrid drive device having a generator (2) which is driven by an engine (1), a storage device (3) which stores generated electrical power from the generator (2), and an electrical motor (2 reversible) which is driven by the electrical power of the storage device (3) and/or the electrical power of the generator (2);

the storage device (3) comprising:

a condenser bank (figure 2) having a plurality of condenser cells (17) connected in series;

a parallel monitor (20) which is connected in parallel to each condenser cell (17) and which bypasses the charging current when the respective terminal voltages exceed a fixed value (according to GB 2,319,407, which is a translation of the Japanese document); and

a switching converter (16) with fixed current output characteristics which controls the charging electrical power to the condenser bank (figure 2).

Referring to claim 2, Koike et al. disclose a hybrid drive device for use in a hybrid vehicle having a generator (2) which is driven by an engine (1), a storage device (3) which stores generated electrical power from the generator (2), and an electrical motor (2 reversible) which drives the vehicle drive wheel with the electrical power of the storage device (3) and/or the electrical power of the generator (2), the hybrid drive device comprising:

a storage device (3) including a condenser bank (17) having a plurality of condenser cells (17) connected in series (figure 2);

a parallel monitor (20) which is connected in parallel to each condenser cell (17) and which bypasses the charging current when the respective terminal voltages exceed a fixed value;

a switching converter (16) with fixed current output characteristics which controls the charging electrical power to the condenser bank (17); and

a controller (7a) which detects the amount of the state of charge in the storage device (3) and the required vehicle drive power and controls the switching converter to achieve a motor power corresponding to the required drive power, the controller (7a) controlling the engine (1) to maintain the amount of the state of charge to a suitable value.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike et al. in Araki et al. (U. S. Pat. 5,563,454).

Koike et al. substantially teaches the claimed invention except that it does not show that the switching converter of the storage device further has a wide operating range. Koike et al. do not disclose that each condenser of the storage device is an electrical double-layer condenser which has a large electrostatic capacity.

Araki et al. disclose that each condenser of the storage device is an electrical double-layer condenser (column 2, line 64 through column 3, line 3) for the purpose of providing a subsidiary storage device.

It would have been obvious at the time the invention was made to modify the hybrid device of Koike et al. and provide it with the condenser configuration disclosed by Araki et al. for the purpose of providing a subsidiary storage device.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the switching converter with a wide operating range, and the condenser with a large electrostatic capacity since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-

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5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
June 29, 2002

A handwritten signature in black ink, appearing to read 'Karl Tamai', with a long horizontal stroke extending to the right.

**KARL TAMAI
PRIMARY EXAMINER**